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EXAMINER

CAJILIG, CHRISTINE T

ART UNIT	PAPER NUMBER
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3633

MAIL DATE	DELIVERY MODE
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08/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 08/975,940	Applicant(s) COMMINS ET AL.	
	Examiner CHRISTINE T. CAJILIG	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47 is/are allowed.
- 6) ☒ Claim(s) 36-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 1997 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/14/09 has been entered.

Claim Rejections - 35 USC § 103

Claims 36,37, and 43-46 are rejected under 35 U.S.C. 103(a) as being obvious over Mueller (U.S. Patent No. 5,706,626) in view of Horowitz (U. S. Patent No. 3,623,288), Utzman (U.S. Patent No. 5,870,870) and Yoshiyuki (JP 60-122420).

Regarding claims 36, 37, and 43-45, Mueller discloses a wall (Fig. 5) designed to resist lateral forces imposed on a building incorporating said wall, said building having an underlying structural component for supporting said wall, said wall comprising: a. a bottom plate (161) for resting on said underlying structural component of said building; c. a plurality of vertically-disposed studs (160a, 160b) resting on said bottom plate; e. a top plate (162) resting on said vertically-disposed studs; and further discloses that a

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shear panel can be positioned within the wall between the top, bottom, and vertical studs with a plate means (164) for connecting a shear-resisting assembly to said top plate of said wall via top plate fasteners (152) having a threaded shank portion; foundation anchors (166a, 166b, 172) for connecting said shear-resisting assembly to said underlying structural component of said building, and wherein said bottom strut (106) is formed with an opening through which said foundation anchor passes, and said opening (through which bolt 172 is inserted; Col 7, Ln 48-54) in said bottom strut is a notch in said bottom strut that allows said bottom strut to slide into place.

Mueller does not expressly disclose that the planar element, top and bottom struts, and the first and second chords of the shear resisting assembly are made of wood; b. means for connecting said bottom plate to said underlying structural component of said building; d. means for connecting said plurality of vertically-disposed studs to said bottom plate; f. means for connecting said top plate to said vertically-disposed studs and a shear-resisting assembly connected to said top plate and also for connecting to said underlying structural component and for being disposed between said top plate and said underlying structural component, said shear-resisting assembly including, 1. a planar shear-resisting element, said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including, 2. a top strut connected to said proximal face near said top edge of said shear-resisting element, and disposed substantially parallel to said top plate of said wall, 3. a bottom strut connected to said proximal face near said bottom edge of said shear-resisting element, 4. a first

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chord connected to said proximal face near said first side edge of said shear-resisting element, 5. a second chord connected to said proximal face near said second side edge of said shear-resisting element, and 6. edge fasteners, having shank portions, for connecting said top strut, said bottom strut, said first chord and said second chord to said shear-resisting element, said top and bottom struts and said first and second chords forming a supporting frame for said shear-resisting element; and j. boundary edging members disposed on said shear-resisting element at said top and bottom edges and said first and second side edges that are pierced by said shank portions of said edge fasteners and thereby strengthen the connection made by said edge fasteners, and wherein said boundary edging members are u-shaped channels, having a pair of legs joined by a central member that embrace said shear-resisting element, each of said edge fasteners passing through each of said legs of said u-shaped channels.

However, it is old and well known in the art that structural components of a building are connected together via known fasteners to create a sturdy, unified structure and to use wood as a building material. Nonetheless, Horowitz discloses a wall with a means which is a foundation anchor (62) for connecting a bottom plate to an underlying structural component of said building and fasteners for connecting horizontal and vertical framing members together (Col 5, Ln 34-40) to hold all of the framing members securely in a permanent connection. Mueller also discloses that it is old and well known that wooden members may be used in fabricating a shear wall assembly (Col 1, Ln 34-55).

Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the Applicant's invention to modify the structure of Mueller to have a means for connecting said bottom plate to said underlying structural component of said building and fastening means for connecting all horizontal and vertical framing members together as taught by Horowitz to provide stable permanent connections and to make the shear wall members out of wood as further taught by Mueller to provide a relatively inexpensive material. Moreover, it would have been obvious to one having ordinary skill in the art at the time of invention to use wood for the planar element, top and bottom struts, and the first and second chords of the shear resisting assembly, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Moreover, Utzman discloses a shear-resisting assembly for use in framed buildings wherein the shear-resisting assembly includes 1. a planar shear-resisting element (10), said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including, 2. a top strut (upper horizontal member) connected to said proximal face near said top edge of said shear-resisting element, 3. a bottom strut (lower horizontal member) connected to said proximal face near said bottom edge of said shear-resisting element, 4. a first chord (3) connected to said proximal face near said first side edge of said shear-resisting element, 5. a second chord (3) connected to said proximal face near said second side edge of said shear-resisting element, and 6.

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edge fasteners (1) consisting of nails, having shank portions (8), for connecting said top strut, said bottom strut, said first chord and said second chord to said shear-resisting element, said top and bottom struts and said first and second chords forming a supporting frame for said shear-resisting element.

Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the Applicant's invention to substitute a shear panel assembly as taught by Utzman into the wall frame of Mueller to provide a shear panel with improved resistance to tensile and compressive loading. Per the modification, it would have been obvious that the substituted shear resisting assembly of Utzman is installed in the same manner as the shear assembly of Mueller by providing shear assembly of Utzman with openings in the bottom strut of Utzman.

Finally, Yoshiyuki discloses wall with a boundary edging member (7) disposed on a shear-resisting element (4) on places that are pierced by shank portions of an edge fastener (6) and thereby strengthen the connection made by said edge fasteners, and wherein said boundary edging members are u-shaped channels, having a pair of legs (7a, 7b) joined by a central member (7) that embrace said shear-resisting element, said edge fastener passing through each of said legs of said u-shaped channels to prevent damage from forming in the areas of the fastener. Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the Applicant's invention to modify the structure of Utzman to have boundary edging members disposed on said shear-resisting element on all areas edges (i.e. at said top and bottom edges and said first and second side edges) that are pierced by said shank portions of

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said edge fasteners and thereby strengthen the connection made by said edge fasteners, and wherein said boundary edging members are u-shaped channels, having a pair of legs joined by a central member that embrace said shear-resisting element, each of said edge fasteners passing through each of said legs of said u-shaped channels as taught by Yoshiyuki to provide reinforcement at the fastener locations.

Regarding claim 46, Mueller already modified by Horowitz, Utzman, and Yoshiyuki discloses the structure discussed above and further discloses that said shear-resisting assembly further comprises: a. intermediate studs (140) disposed between said top and bottom struts of said shear-resisting element; b. means for connecting said intermediate studs to said top and bottom struts (via 114); c. means for connecting said intermediate studs to said structural panels; anti wherein selected intermediate studs are disposed at said joints of said structural panels, serving to connect said structural panels together (via 115 and 124).

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (U.S. Patent No. 5,706,626) in view of Horowitz (U. S. Patent No. 3,623,288), Utzman (U.S. Patent No. 5,870,870) and Yoshiyuki (JP 60-122420) as applied to claim 37 above, and further in view of Haydon (U. S. Patent No. 5,279,088).

Regarding claim 38, Mueller already modified by Horowitz discloses the structure discussed above, but does not disclose epoxy within said opening in said bottom strut to ensure close contact between said foundation anchor and said bottom strut.

Haydon discloses filling an opening with epoxy (Col 7, Ln 56-60) to further secure an anchor in the opening.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the structure of Mueller already modified by Horowitz to have epoxy within an opening, such as that one in said bottom strut to ensure close contact between said foundation anchor and said bottom strut as taught by Haydon to provide additional stability to the anchor and wall connection.

Claims 39-42 are rejected under 35 U.S.C. 103(a) as being obvious over Mueller (U.S. Patent No. 5,706,626) in view of Horowitz (U. S. Patent No. 3,623,288), Utzman (U.S. Patent No. 5,870,870), Yoshiyuki (JP 60-122420), and Hardy (U.S. Patent No. 6,148,583).

Regarding claims 39 and 41, Mueller discloses a wall (Fig. 5) designed to resist lateral forces imposed on a building incorporating said wall, said building having an underlying structural component for supporting said wall, said wall comprising: a. a bottom plate (161) for resting on said underlying structural component of said building; c. a plurality of vertically-disposed studs (160a, 160b) resting on said bottom plate; e. a top plate (162) resting on said vertically-disposed studs; and further discloses that a shear panel can be positioned within the wall between the top, bottom, and vertical studs with a plate means (164) for connecting a shear-resisting assembly to said top plate of said wall via top plate fasteners (152) having a threaded shank portion; first and second anchor bolts (166a, 166b) for anchoring to said underlying structural component

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and are disposed near said first and second chords; k. first and second holdowns (130a, 130b) that receive said first and second anchor bolts; l. Nuts (135) that are fitted on said first and second anchor bolts and engage said first and second holdowns; m. means (132) for connecting said first and second holdowns to said first and second chords, and wherein; n. said bottom strut (106) is formed with anchor bolt openings (through which 166 goes through) through which said first and second anchor bolts pass, said anchor bolt openings in said bottom strut being notches in said bottom strut that allow said bottom strut to slide into place.

Mueller does not expressly disclose that the planar element, top and bottom struts, and the first and second chords of the shear resisting assembly are made of wood; b. means for connecting said bottom plate to said underlying structural component of said building; d. means for connecting said plurality of vertically-disposed studs to said bottom plate; f. means for connecting said top plate to said vertically-disposed studs and a shear-resisting assembly connected to said top plate and also for connecting to said underlying structural component and for being disposed between said top plate and said underlying structural component, said shear-resisting assembly including, 1. a planar shear-resisting element, said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including, 2. a top strut connected to said proximal face near said top edge of said shear-resisting element, and disposed substantially parallel to said top plate of said wall, 3. a bottom strut connected to said proximal face near said bottom edge of said shear-resisting element, 4. a first

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chord connected to said proximal face near said first side edge of said shear-resisting element, 5. a second chord connected to said proximal face near said second side edge of said shear-resisting element, and 6. edge fasteners, having shank portions, for connecting said top strut, said bottom strut, said first chord and said second chord to said shear-resisting element, said top and bottom struts and said first and second chords forming a supporting frame for said shear-resisting element; boundary edging members disposed on said shear-resisting element at said top and bottom edges and said first and second side edges that are pierced by said shank portions of said edge fasteners and thereby strengthen the connection made by said edge fasteners, and wherein said boundary edging members are u-shaped channels, having a pair of legs joined by a central member that embrace said shear-resisting element, each of said edge fasteners passing through each of said legs of said u-shaped channels, and that said anchor bolt openings are oversized to accommodate mis-installation of said first and second anchor bolts in said underlying structural component.

However, it is old and well known in the art that structural components of a building are connected together via known fasteners to create a sturdy, unified structure and to use wood as a building material. Nonetheless, Horowitz discloses a wall with a means which is a foundation anchor (62) for connecting a bottom plate to an underlying structural component of said building and fasteners for connecting horizontal and vertical framing members together (Col 5, Ln 34-40) to hold all of the framing members securely in a permanent connection. Mueller also discloses that it is old and well known

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that wooden members may be used in fabricating a shear wall assembly (Col 1, Ln 34-55).

Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the Applicant's invention to modify the structure of Mueller to have a means for connecting said bottom plate to said underlying structural component of said building and fastening means for connecting all horizontal and vertical framing members together as taught by Horowitz to provide stable permanent connections and to make the shear wall members out of wood as further taught by Mueller to provide a relatively inexpensive material. Moreover, it would have been obvious to one having ordinary skill in the art at the time of invention to use wood for the planar element, top and bottom struts, and the first and second chords of the shear resisting assembly, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Moreover, Utzman discloses a shear-resisting assembly for use in framed buildings wherein the shear-resisting assembly includes 1. a planar shear-resisting element (10), said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including, 2. a top strut (upper horizontal member) connected to said proximal face near said top edge of said shear-resisting element, 3. a bottom strut (lower horizontal member) connected to said proximal face near said bottom edge of said shear-resisting element, 4. a first chord (3) connected to said proximal face near

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said first side edge of said shear-resisting element, 5. a second chord (3) connected to said proximal face near said second side edge of said shear-resisting element, and 6. edge fasteners (1) consisting of nails, having shank portions (8), for connecting said top strut, said bottom strut, said first chord and said second chord to said shear-resisting element, said top and bottom struts and said first and second chords forming a supporting frame for said shear-resisting element.

Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the Applicant's invention to substitute a shear panel assembly as taught by Utzman into the wall frame of Mueller to provide a shear panel with improved resistance to tensile and compressive loading. Per the modification, it would have been obvious that the substituted shear resisting assembly of Utzman is installed in the same manner as the shear assembly of Mueller by providing shear assembly of Utzman with openings in the bottom strut of Utzman.

Furthermore, Hardy discloses a wall assembly wherein anchor bolt openings (56) are oversized to accommodate adjustment during installation (Col 4, Ln 44-58).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the structure of Mueller to have anchor bolt openings that are oversized to accommodate mis-installation of said first and second anchor bolts in said underlying structural component as taught by Hardy to allow for adjustment during installation and to make the shear wall members out of wood as further taught by Mueller to provide a relatively inexpensive material.

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Finally, Yoshiyuki discloses wall with a boundary edging member (7) disposed on a shear-resisting element (4) on places that are pierced by shank portions of an edge fastener (6) and thereby strengthen the connection made by said edge fasteners, and wherein said boundary edging members are u-shaped channels, having a pair of legs (7a, 7b) joined by a central member (7) that embrace said shear-resisting element, said edge fastener passing through each of said legs of said u-shaped channels to prevent damage from forming in the areas of the fastener. Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the Applicant's invention to modify the structure of Utzman to have boundary edging members disposed on said shear-resisting element on all areas edges (i.e. at said top and bottom edges and said first and second side edges) that are pierced by said shank portions of said edge fasteners and thereby strengthen the connection made by said edge fasteners, and wherein said boundary edging members are u-shaped channels, having a pair of legs joined by a central member that embrace said shear-resisting element, each of said edge fasteners passing through each of said legs of said u-shaped channels as taught by Yoshiyuki to provide reinforcement at the fastener locations.

Regarding claim 40, Mueller already modified by Horowitz, Utzman, Yoshiyuki, and Hardy discloses the structure discussed above and further discloses that said first and second holdowns are formed with openings (133) that are oriented in the same direction as, and are in general alignment with, said notches in said bottom strut, when said first and second holdowns are attached to said first and second chords (via 132), said openings receiving said first and second anchor bolts (166a, 166b); and b. said first

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and second holdowns are formed with portals (channel openings) to allow said shear-resisting assembly to be slid into place, but does not disclose that openings in the first and second holdowns are slotted.

Hardy discloses a wall assembly wherein anchor bolt openings (56) are slotted to accommodate adjustment during installation (Col 4, Ln 44-58).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the structure of Mueller already modified by Horowitz, Yoshiyuki, Utzman and Hardy to have anchor bolt openings as taught by Hardy that are slotted to accommodate mis-installation of said first and second anchor bolts in said underlying structural component to allow for adjustment during installation.

Regarding claim 42, Mueller already modified by Horowitz, Hardy, Utzman, and Yoshiyuki discloses the structure discussed above, but does not disclose that the threaded holdown fasteners are inserted only a selected distance into the first and second chords without passing all the way through the first and second chords.

It would have been obvious design choice to have the threaded holdown fasteners inserted a selected distance into the first and second chords without passing all the way through the first and second chords since applicants have not disclosed that inserting the holdown fasteners through the first and second chords solves any stated problem and it appears that the structure would perform equally well if the holdown fastener inserted a selected distance into the first and second chords.

Allowable Subject Matter

Claim 47 is allowed.

Response to Arguments

Applicant's arguments with respect to claims 36-42 and 44-46 have been considered but are moot in view of the new ground(s) of rejection.

On pages 15-17 of the Remarks, Applicant argues that Mueller does not disclose "a notch in said bottom strut that allows said bottom strut to slide into place," because unlike Applicant's invention, the bottom strut of Mueller has to be inserted over the foundation anchor. However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an opening that communicates with the side of the bottom strut) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In the instant case, the bottom strut of Mueller has a notch that allows it to be slid in place, albeit slid over the foundation anchor. The recitation that the notch in the bottom strut allows it to be slid in place, does not necessitate that the bottom strut be slid along a horizontal plane to accommodate a foundation anchor. Therefore, the prior art of Mueller indeed discloses a notch in the bottom strut. The Examiner also directs Applicant's attention to the prior art of JP 5-44276 to Misawa which was submitted in

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Applicant's IDS filed on 1/02/08 which teaches an open recess in the bottom strut which allows it to be horizontally slid to accommodate a foundation anchor.

On page 18 of the Remarks, Applicant argues that the Examiner fails to teach which reference suggests using nails as the edge fasteners. However, as discussed in the 35 U.S.C. 103(a) rejection above, Utzman already uses nails as the edge fasteners and the prior art of Yoshiyuki is used to teach the use of a u-shaped reinforcing edge strip.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE T. CAJILIG whose telephone number is (571)272-8143. The examiner can normally be reached on Monday - Thursday from 8am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Canfield can be reached on (571) 272-6840. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. T. C./
Examiner, Art Unit 3633

/Robert J Canfield/
Supervisory Patent Examiner, Art Unit 3635